

Amendments to the Specification:

Please rewrite the paragraph on page 1, lines 5-11 as follows:

The present invention relates to a mixing tube and to a method of manufacturing the mixing tube. In particular, the present invention relates to a technique which can be suitably employed for a mixing tube used for mixing two types of fluids ~~in~~during production of a two-component reactive adhesive such as an epoxy adhesive, a polyurethane adhesive, or a silicon adhesive, or a sealant or a packing material.

Please rewrite the paragraph on page 1, lines 13-18 as follows:

A ~~Twetwo~~two-component adhesive consists of ~~a~~ base and ~~a~~catalyst agents which are prepared separately, and the base and catalyst agents are mixed together in use. Conventionally, the base and catalyst agents are mixed by employing a manual method using a knife, a spatula, or the like, a method that utilizes a dispenser using a static mixer, or a method that uses a specially designed mixer.

Please rewrite the paragraph bridging page 1, line 19--page 2, line 4 as follows:

However, the following problems exist when performing mixing of materials by using the conventional methods. Hardening of the base agent and the catalyst agent in ~~a~~two-component adhesive begins upon mixing of the base agent with the catalyst agent, and curing occurs even at room temperature. Therefore, there are occasions where the materials adhere to the knife, the spatula, inner portions of the static mixer, and containers within the specially designed mixer after one time usage. Therefore, the whole mixture cannot be used for its original purpose as an adhesive, resulting in disposal of the cured material.

Please rewrite the paragraph on page 2, lines 5-7 as follows:

Further, ~~a~~the degree of mixing performed by an operator depends on the judgement of the operator, and there is a problem in that differences develop in the quality of the resultant mixtures.

Please rewrite the paragraph bridging page 3, line 23--page 4, line 6 as follows:

The present invention is made in view of the above-describedabove-described problems. An object of the present invention is to provide a mixing tube that has a relatively simple structure, and that is capable of dividing, aggregating, and sufficiently mixing multi-component materials. This mixing tube is manufactured from a flexible material, such as, a plastic film or the like, wherein a residual material, after mixing tube materials, remainedthat remains inside the mixing tube after mixing tube materials can be squeezed out by squeezed-squeezing the mixing tube.

Please rewrite the paragraph on page 4, lines 7-23 as follows:

In order to solve the above-mentioned technical problems, a mixing tube according to the present invention has the following structure. The mixing tube includes a first mixing passage and a second mixing passage for mixing the materials to be mixed, and causes multi-component materials to pass through the first mixing passage and the second mixing passage, repeatedly dividing and aggregating the materials to be mixed by passing them through the mixing passages, wherein the. The first mixing passage and the second mixing passage are formed by a first outer frame member, a second outer frame member, and a partition member that is interposed between the first and second outer frame members, the three members dividing the mixing tube in a direction toward which the materials to be mixed pass, and holes are formed at fixed intervals in the partition member in a direction of mixing which the materials, the. The first mixing passage and the second mixing passage repeatedly dividing divide and aggregating-aggregate the materials due to the holes, thereby the materials are divided of-and aggregated repeatedly.

Please rewrite the paragraph bridging page 4, line 24--page 5, line 12 as follows:

With the above described structure, the materials to be mixed pass through the first and the second mixing passages, and through the holes of the partition member, and the materials are divided and aggregated, to thereby to-be mixed sufficiently. The

mixing tube is configured by three members ~~of including~~ the first outer frame member, the second outer frame member, and the partition member, ~~and~~ they can be configured and assembled easily and simply. Further, there are no limitations to the sectional shapes of the first and the second outer frame members, ~~and~~ the shapes may be rectangular, circular, rhombic, or the like. That is, there are no limitations to the sectional shapes so long as the plural ~~plurality of~~ mixing passages formed in the mixing tube repeatedly divide and merge together the materials to be mixed through the partition member having the holes.

Please rewrite the paragraph on page 6, lines 2-7 as follows:

Furthermore, the first mixing passage and the second mixing passage of the mixing tube according to the present invention have ~~plural-a plurality of~~ elements with ~~their~~ ~~whose~~ sectional shapes change continuously, and ~~that are~~ connected in series. The holes of the partition member are formed to have a size ~~that is~~ equal to half the length of each of the elements in ~~a~~ ~~the~~ direction of mixing the materials.

Please rewrite the paragraph on page 6, lines 8-20 as follows:

According to the above described structure, a compressive force and a shear force are continuously applied to the materials to be mixed as they pass through each of the elements ~~with~~ ~~having~~ the sectional shape ~~that~~ changes continuously. Further, the holes, each having a size equal to half the length of each of the elements, are formed in the partition member, and therefore the materials to be mixed that pass through each of the deformed passages are regularly divided and merged together. That is, the materials to be mixed continuously receive compressive forces and shear forces as they pass through the mixing passages, and in addition, the materials to be mixed are regularly divided and merged together with the materials to be mixed that pass through other mixing passages. The mixing passages thus mix the multi-component materials uniformly.

Please rewrite the section heading on page 16, line 16 as follows:

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS INVENTION

Please rewrite the paragraph bridging page 21, line 10—page 22, line 1 as follows:

As shown in FIG. 5A5(a), the materials A and B to be mixed that are injected into the first passage blocks 11 from the containers 40A and 40B containing for materials to be mixed , are divided into two rectangular portions whose longer sides are in the X direction at the inlet point P1. Then, the lengths of the rectangular portions in the X direction gradually become shorter as shown in FIG.-5B5(b), and the deformed passages 13 and 14 for the materials A and B to be mixed change into a square shape at the intermediate point P3 as shown in FIG.-5C5(c). The deformed passages 13 and 14 thereafter gradually merge because the holes 15c are formed in the partition member 15 between the deformed passages 13 and 14, as described above. The materials A and B to be mixed therefore merge together as shown in FIG.-5D5(d). The deformed passages 13 and 14 are completely merged at the outlet point P5, and the materials A and B to be mixed exist in a mutually mixed state at the outlet point P5, as shown in FIG.-5E5(e).

Please rewrite the paragraph on page 30, lines 13-22 as follows:

Mixing states when the materials A and B to be mixed pass through the first passage blocks 31 and the second passage blocks 32 that are connected in series will be explained next. States where the materials A and B to be mixed pass through the first passage block 31 are shown in FIGS. 11A11(a) to 11E11(e). Note that the reference symbols R1 to R5 in FIGS. 11A-11(a)to 11E11(e) correspond to material passage positions of the first passage block 31 in FIG. 10, and are sectional views in the material passage positions as seen from the inlet port. Further, the reference symbols A and B denote the materials to be mixed.

Please rewrite the paragraph bridging page 30, line 23—page 31, line 13 as follows:

The materials A and B to be mixed that are injected into the first passage block 31 from the containers 40A and 40B containing materials to be mixed are divided into two deformed passages 61 and 63 each having a rectangular shape with longer sides

are in the X direction at the inlet point R1, as shown in FIG.-11A11(a). The lengths in the X direction then gradually become shorter as shown in FIG.-11B11(b), and the deformed passages 61 and 63 for the materials A and B to be mixed change into a square shape at the intermediate point R3 as shown in FIG.-11C11(c). Thereafter, the deformed passages 61 and 64, and the deformed passages 62 and 63 gradually merge, respectively. The materials A and B to be mixed merge together as shown in FIG.-11D11(d). At the outlet point P5, the deformed passages 61 and 64, and the deformed passages 62 and 63, form the rectangular outlet ports 31b that are long in the Y direction, as shown in FIG.-11E11(e).

Please rewrite the paragraph on page 32, lines 2-23 as follows:

A method of manufacturing the mixing tube 30 will be explained next. First, the first outer frame member 51, the second outer frame member 52, and the partition member 35 are formed. The first outer frame member 51 and the second outer frame member 52 are configured such that the deformed passages of the first passage blocks 31 and the second passage blocks 32 are formed while forming the respective intermediate partitions 51b, 51c, 52b and 52c. The partition member 35 has a sheet-like shape, and the holes 35c each having a size that is half ~~the~~ length of each passage block 31 or each passage block 32 of the mixing tube 30 are formed. At this time flanges 51a, 52a and 35a are formed in the first outer frame member 51, the second outer frame member 52, and the partition member 35, respectively, at both ends in the longitudinal direction of the respective members. The ends of the flanges 51a, 52a and 35a of the respective three members are then welded together, the flanges 51a and 52a of the first outer frame member 51 and the second outer frame member 52, respectively, sandwiching the flanges 35a of the partition member 35. The intermediate partitions 51b and 51c of the first outer frame member 51, and the intermediate partitions 52b and 52c of the second outer frame member are also welded together. The mixing tube 30 according to the first embodiment can thus be manufactured.